REMARKS

Applicant respectfully requests that the foregoing amendments be made prior to examination of the present application, and respectfully requests reconsideration of the present application in view of the foregoing amendments and the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 1, 2, 4-6, 8, 12, 14 and 15 are rejected under Section 102(b) based on Burrows *et al.* (U.S. 6,048,630). The examiner argues that Burrows *et al.* disclose an organic light-emitting device including a substrate, and a layered body that contains, in order, a reflecting electrode, a first organic EL layer that emits light of a first color, a first transparent electrode, a second organic EL layer that emits light of a second color different than the first, and a second transparent electrode. Regarding the limitation of electrode polarity, he alleges that the polarity of electrodes is a method of operating and not germane to the structure.

Claim 1 has been amended to recite a power source having first and second electrodes of opposite polarity, wherein the reflecting electrode and the second transparent electrode are connected to the first electrode of the power source, and the first transparent electrode is connected to the second electrode of the power source. Thus recited, the polarity of the electrodes is recited in terms of structure, and is "germane." An arrangement as presently claimed is not disclosed in Burrows *et al.*

As noted in the background of applicants' specification, many proposals have been made regarding organic EL light emitters that emit white light. For example, it has been reported that a white color can be achieved by forming light-emitting layers of two colors between an anode and a cathode (see Japanese Patent No. 3366401). Moreover, it has been reported that a white color can be achieved by arranging, between an anode and a cathode, a plurality of organic EL light-emitting units in series with equipotential surfaces therebetween (see Japanese Patent Application Laid-open No. 2003-45676). It also has been reported that by building up organic EL light emitters that emit light of the same color with the light emitters being connected together in parallel, the current density of the current flowing through the light emitters can be reduced and hence the lifetime of the light emitters can be lengthened (see Japanese Patent No. 3189438).

However, with all of the above methods, the light-emitting layers or light-emitting units are connected together in series in order to achieve a white color, and hence the driving voltage must be increased. An increase in the light emitter driving voltage may cause failure of the driving IC, and hence is undesirable in practice. There are thus calls for the development of an organic EL light emitter that can emit white light, and that can be driven with a low voltage. The arrangement as presently recited in claim 1 can be driven with a low voltage.

Moreover, in the present invention, first organic EL layer 2a and second organic EL layer 2b are arranged symmetrically about first transparent electrode 3a as shown in Figure 1. In the invention of Burrows *et al.*, on the other hand, an organic EL layer does not possess symmetric structure, as shown Figure 17. Therefore the present invention differs in structure from Burrows *et al.* This difference results from the direction(s) of electric power as shown following figures)'

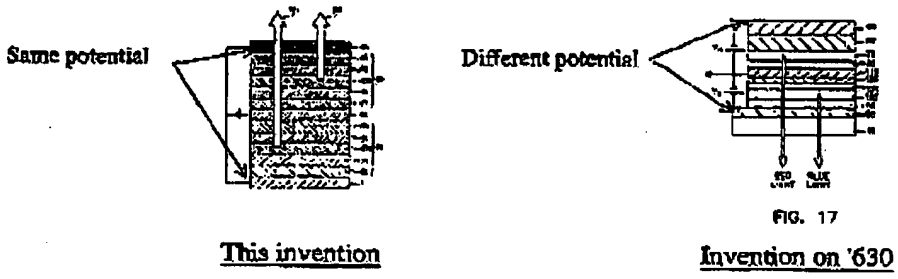

FIG. 17

This invention Invention on '630

Reconsideration and withdrawal of the rejection under Section 102(b) based on Burrows *et al.* is requested.

Claim 7 is rejected under Section 103(a) based on Burrows *et al.* in view of Inoguchi *et al.* (U.S. 5,932,327). Like Burrows *et al.*, Inoguchi *et al.* fails to disclose an arrangement including a power source having first and second electrodes of opposite polarity, wherein the reflecting electrode and the second transparent electrode are connected to the first electrode of the power source, and the first transparent electrode is connected to the second electrode of the power source. No *prima facie* case of obviousness exists based on the combination of Burrows *et al.* and Inoguchi *et al.*

Claims 3, 9 and 13 are rejected under Section 103(a) based on Burrows *et al.* in view of Utsugi *et al.* (U.S. 5,837,391). Claims 3 and 13 have been rewritten in independent form as claims 17 and 18, respectively. Claim 17 recites a layered body that contains, in order, a reflecting electrode, a first organic EL layer that emits light of a first color, a first transparent

electrode, a second organic EL layer that emits light of a second color different than the first color, and a second transparent electrode, in which the substrate and the reflecting electrode being in contact with one another. Claim 18 recites a substrate, a reflecting electrode in contact with said substrate, and a plurality of layers comprising organic EL layers and transparent electrodes formed alternately on said reflecting electrode, where the reflecting electrode is in contact with one of the organic EL layers, each of the organic EL layers emits light of a different color, and the reflecting electrode and the even numbered ones of the transparent electrodes counting from the reflecting electrode side have the same polarity as one another, and the odd numbered ones of the transparent electrodes counting from the reflecting electrode side have the polarity opposite to that of the reflecting electrode and the even numbered ones of said transparent electrodes.

The examiner urges that Utsugi *et al.* disclose a reflecting electrode in contact with the substrate. In this regard, he states that he interprets the "semitransparent electrode" of Utsugi as being "reflective." While applicants do not necessarily agree with this interpretation, even if it is accepted, the combination of Burrows *et al.* and Utsugi *et al.* fails to disclose or suggest an arrangement as presently recited in claims 17 and 18, which have the scope of original claims 3 and 13. The examiner cites the description of Figure 3 in Utsugi *et al.* In Figure 3, semi-transparent cathode 21a overlies substrate 20. There follows in order a blue-emitting EL layer 22a, a green-emitting EL layer 22b, a semi-transparent anode, a red-emitting EL layer 22c and a cathode 21c, which may be nontransparent. If the semi-transparent material 21a is interpreted as reflective, then semi-transparent material 21b must also be interpreted as reflective. This means that the order of layers is substrate 20, reflective electrode 21a, blue EL layer 22a, green EL layer 22b, reflective electrode 21b, red EL layer 22c and electrode 21c, which optionally is nontransparent. The order of layers specified in original claims 3 and 13 (now claims 17 and 18), is substrate, reflective electrode, first EL layer, first transparent electrode, second EL layer of a different color, and second transparent electrode. Thus, there are two EL layers with an intervening transparent electrode. If the term "semi-transparent" in Utsugi is interpreted to mean "reflective" there is no possible suggestion in Utsugi of such an arrangement of layers. No *prima facie* case of obviousness exists.

Claim 9 recites that there is a transparent insulating layer between the first transparent electrode and the second organic EL layer. Utsugi *et al.* fails to suggest this arrangement in connection with a device that includes a power source having first and second electrodes of

opposite polarity, wherein the reflecting electrode and the second transparent electrode are connected to the first electrode of the power source, and the first transparent electrode is connected to the second electrode of the power source. No *prima facie* case of obviousness exists with respect to claim 9.

Claim 16 is rejected under Section 103(b) based on Burrows *et al.* in view of Shen *et al.* (U.S. 6,232,714). Claim 16 discloses an arrangement including a substrate, a reflecting electrode, a plurality of layers comprising organic EL layers and transparent electrodes formed alternately on said reflecting electrode, and a power source having first and second electrodes of opposite polarity, in which the reflecting electrode is in contact with one of the organic EL layers, each of the organic EL layers emits light of a different color, and the reflecting electrode and the even numbered ones of the transparent electrodes counting from the reflecting electrode side are connected to said first electrode, and the odd numbered ones of the transparent electrodes counting from the reflecting electrode side are connected to said second electrode and have a polarity opposite to that of the reflecting electrode and the even numbered ones of the transparent electrodes. There is a transparent insulating layer between one of the transparent electrodes and one of the organic EL layers. Such an arrangement is not disclosed or suggested by the combination of Burrows *et al.* and Shen *et al.*

Claims 10 and 11 are rejected under Section 103(a) based on Burrows *et al.* in view of Forrest *et al.* (U.S. 5,707,745). The examiner urges that Figure 2A of Forrest *et al.* suggests the use of a third organic EL layer. It is noted, however, that in Forrest *et al.* "in the example of Figs. 2A and 2B, LED's 20, 21 and 22 are forward biased by batteries 32, 31 and 30, respectively." An arrangement as presently claimed, in which the reflecting electrode and the second transparent electrode are connected to the first electrode of a power source, and the first transparent electrode is connected to the second electrode of the power source is directly contrary to that disclosed by Forrest *et al.* The combination of Forrest *et al.* and Burrows *et al.* would change the principle of operation of Forrest *et al.* which clearly is impermissible (see MPEP 2143.01 – "the proposed modification cannot change the principle of operation of a reference").

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

If there are any problems with this response, Applicant's attorney would appreciate a telephone call. In view of the foregoing, it is believed none of the references, taken singly or in combination, disclose the claimed invention. Accordingly, this application is believed to be in condition for allowance, the notice of which is respectfully requested.

Respectfully submitted,

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06/22/05
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